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**Citizens Advisory Committee on the
Patuxent River Oil Spill**

REPORT to THE GOVERNOR

December, 2002



Photographs on pages 2, 3, 5, and 7 by Rick Giammaria, Courtesy of Pepco



STATE OF MARYLAND

Patuxent River Oil Spill Citizens Advisory Committee

Parris N. Glendening
Governor
Kathleen Kennedy Townsend
Lt. Governor

C. Bernard Fowler
Chair

December 12, 2002

Hon. Parris N. Glendening
Governor of Maryland
The State House
Annapolis, Maryland 21401

Dear Governor Glendening:

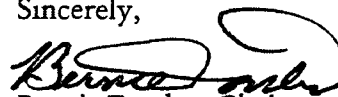
Enclosed is the final report of the Oil Spill Citizens Advisory Committee which you appointed a little over two years ago to assist the Departments of Natural Resources and Environment to plan for restoration of the Patuxent River following the April 7, 2000, oil spill at the Pepco generating plant. Major parts of our charge from you dealt with educating the public about the spill and what was being done to clean up and restore the River and to be sure that public concerns were addressed appropriately in restoration planning.

Attached to our report is a copy of the final *Restoration Plan and Environmental Assessment*, just completed by the Natural Resource Trustees. This plan includes three ecosystem restoration projects that compensate for lost ecological services following the spill, and eight recreation projects, at locations in all four counties affected by the spill, that compensate for the lost recreational use of the River during much of the year 2000. Implementation of these projects will begin next spring, carried out by the Trustees and financed by Pepco and ST Services, at a total cost of about \$2.7 million.

Throughout the damage assessment and restoration planning process the Trustees kept the Committee apprised of their progress; they sought our input frequently and were responsive to our requested amendment to the plan when it was published in draft. Pepco was a cooperative responsible party and provided us assistance in getting information out to the public and providing a forum for public comment. The Committee is satisfied that the restoration projects will go forward as planned.

With this report, the Advisory Committee's work is done. I would like to express my appreciation, and that of the other Committee members, for this opportunity to server the State of Maryland and the River we all love.

Sincerely,


Bernie Fowler, Chair

Attachments (2)

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Background and Introduction

On April 7, 2000 some 126,000 gallons of oil were spilled into Swanson Creek, a tributary of the Patuxent River. The source of the spill was a rupture in an oil pipeline, operated by Support Terminal Services Operating Partnership (ST Services) for supplying oil to the electric generating facility at Chalk Point then owned and operated by the Potomac Electric Power Company (Pepco). Eventually, the oil affected more than 15 miles of the River and its shorelines and tidal tributaries in Prince George's, Calvert, Charles and St. Mary's Counties.

Emergency spill response and clean-up began within hours of the spill, led by the U.S. Environmental Protection Agency (EPA), with major involvement of Pepco and ST Services, the Maryland Department of Environment (MDE), and the U.S. Fish and Wildlife Service (USFWS). Clean-up efforts during the emergency phase of the project included boom deployment and maintenance, skimming and pumping of mobile oil, swabbing, trenching, pressure washing, raking and removal of oiled vegetation.

On May 16, 2000, the emergency response phase of the clean-up was complete. More than 45,000 gallons of oil had been collected and three million pounds of oil-soaked booms and other clean-up materials were disposed. These clean-up actions were accompanied by shoreline oiling surveys, oiled wildlife surveys, the evaluation of oil properties and fate, and post-emergency monitoring. As of the fall of 2002, all 53 zones into which the spill area was divided meet Phase I clean-up criteria, and 40 of the 53 meet Phase II criteria. The remaining 13 zones are signed off or pending Provisional Phase II sign-off. In these 13 zones there are spots that do not meet the Phase II clean-up criteria in which mechanical cleanup would cause more environmental damage than the remnants of the oil itself. These spots have been identified by GPS coordinates and will be put into the Long Term Monitoring process.¹ (Appendix A describes criteria and status of clean-up.) EPA will have oversight of long-term monitoring of water, intertidal sediments and marsh sediments for a minimum of five years. Further monitoring will depend on the persistence of oil in the environment and the extent of contamination.

The federal Oil Pollution Act of 1990 establishes a Natural Resource Damage Assessment (NRDA) process for determining the extent of injuries to public resources and planning for the restoration of those resources, as well as mitigation for the lost ecological services and human use incurred by the public during the period before restoration is completed.² The parties responsible

¹Steve Hilaski, Pepco, personal communications 10/28/02 and 10/31/02.

²It is important to note that the NRDA process does not address damages to private parties caused by the oil spill. Damages incurred by individuals, such as private beach fouling, damage to piers or boats or bulkheads, are

for the spill, in this case Pepco and ST Services, must pay for the assessment and may implement agreed-on restoration projects under the supervision of designated Natural Resource Trustees. Alternatively, they may pay for restoration project implementation to be carried out by the Trustee agencies. The Trustee agencies for the Patuxent oil spill are the National Oceanic and Atmospheric Administration (NOAA), USFWS, MDE and the Maryland Department of Natural Resources (DNR).

The damage assessment phase of the Trustees' work began during the emergency clean-up and



will be completed upon incorporation of the Damage Assessment and Restoration Plan into a consent decree between the Trustees and Pepco and ST Services in late 2002. Scientific studies of damages and expected recovery period were conducted by staff and consultants of the Trustees, in cooperation with technical consultants to Pepco, and were developed to address six categories of damages to public

resources: wetlands and beach shoreline, fish and shellfish, benthic communities, birds, diamondback terrapins, and recreational use of the River. It was determined during this assessment that primary recovery of the lost natural resources—return to their condition prior to April 7, 2000—would most appropriately occur through natural processes rather than through some kind of human intervention. The focus of restoration thus became compensatory restoration to address the loss of resources and ecosystem services in the time between the spill and full recovery.

In July, 2000, Governor Parris N. Glendening signed Executive Order 01.01.2000.12, (Appendix B) establishing the Patuxent River Oil Spill Citizens Advisory Committee to assist the Departments of Natural Resources and Environment (and by extension, the federal Trustees as well) in developing the Damage Assessment and Restoration Plan, advising on priorities and offering local insight on issues. The Advisory Committee was also charged with a public education and outreach function. Composition of the Committee includes a broad spectrum of citizen interests, including: scientists, watermen, environmentalists, local community residents, business interests, the legislature, and local governments. The full membership of the Committee is listed in Appendix C.

addressed in separate legal actions brought by the affected parties.

Since the Advisory Committee's charge closely parallels the work of the Trustees called for by the NRDA process, a close cooperation between the two efforts was established. Trustee representatives attended all meetings of the Advisory Committee, and staff from the Advisory Committee participated in Trustee Council meetings, consulted frequently on public outreach needs and activities, and reviewed early drafts of documents.

During the NRDA process an extensive Administrative Record was established and made available in hard copy at three repository sites, two of them in Southern Maryland and one at the Department of Natural Resources in Annapolis. The findings of injury and the proposed restoration projects are extensively described in the *Restoration Plan and Environmental Assessment for the April 7, 2000, Oil Spill at Chalk Point on the Patuxent River, Maryland*, issued in draft in May, 2002, and being finalized at this writing. A copy is attached to this Report. Rather than repeat this material in this Report, relevant documents will be cited and briefly summarized. The following sections focus on the activities of the Advisory Committee and are organized to respond to the four primary charges to the Committee included in Governor Glendening's July, 2000 Executive Order.

Inform and Educate the Public about Clean-up and Restoration and Obtain Citizen Input

This first charge to the Advisory Committee made the Committee a logical focus for the public outreach activities required of the Natural Resource Trustees by the Oil Pollution Act. The Committee itself was well constituted to serve as a sounding board for the Trustees, as well as providing a conduit to a larger public.

The Advisory Committee met for the first time on September 13, 2000, at a joint meeting with the Patuxent River Commission, beginning the process of informing members themselves of the condition of the River and the process established in federal law for damage assessment and restoration planning. The meeting included a tour by water of the spill area, demonstrating how much recovery had already occurred and providing an opportunity for Committee members to ask questions of technical personnel from EPA, Pepco, and the Trustee agencies. This meeting incorporated an open public meeting, one of the 21 arranged by Pepco throughout the spill response period, where updates on spill clean-up were provided and questions from the public answered.



In response to a request from the Advisory Committee, Trustee technical consultants agreed to prepare and make available to the public one-page descriptions of each of the injury assessment studies being undertaken, including the objectives, methodology, status, and who was undertaking the study. A sample was distributed for Advisory Committee comment at the Committee's second meeting, when the Committee members were asked to comment on its usability and style for public distribution. The Trustees also agreed to the Committee's request that the Administrative Record be posted on the internet as it is being compiled, and this was subsequently done. The posting also includes contact information for the Trustees, including live e-mail links, to facilitate public comment.

In early December, Advisory Committee member Dr. Kenneth Tenore hosted an all-day workshop at the Chesapeake Biological Laboratory for invited members of the local scientific community and the technical staff undertaking the injury assessment studies. The meeting provided an opportunity for the local scientists, including members of the Advisory Committee, to query principal investigators carrying out the studies and receive clarification on issues of data and methodology. At this meeting the completed one-page descriptions of most of the studies were made available. The meeting was recorded and a transcript subsequently drafted by staff from MDE.

Toward the end of 2000 the Citizens Advisory Committee was briefed by staff of the Department of the Environment on the work of the companion Oil Spill Prevention Advisory Committee established by the Governor's Executive Order. On the basis of this work, Senator Roy Dyson, a member of the Citizens Advisory Committee, developed legislation giving the State the authority to regulate oil pipelines. In January, 2001, both committees provided testimony to the Environmental Matters Committee of the House of Delegates. The Citizens Advisory Committee's testimony emphasized the purpose and schedule of the Committee and its role of ensuring that the public's voice would be heard in development of the damage assessments and restoration plans.

Twice during 2001, once in January and once in July, Pepco held public meetings in which Committee members participated. The meetings were advertised in mailings to some 25,000 to 30,000 people on Pepco's mailing list of local residents who receive such notices, as well as a series of newsletters. Committee staff developed brief articles about the Committee's work for these newsletters. The intent of both the newsletters and the public meetings has been to keep the affected Southern Maryland community up to date on progress of both the clean-up and restoration planning. The meetings also provided an opportunity for citizens to ask questions and express their interests. As time passed following the spill, and as clean-up progressed, attendance at the meetings diminished.

In the late spring of 2001, the Advisory Committee sponsored a briefing of the Governor's Bay Cabinet on the status of the clean-up, assessment and restoration planning. Attendees included the chairs of Tributary Teams, representatives of multiple state agencies, Chesapeake Bay Program

committees (Citizens Advisory Committee and Scientific and Technical Advisory Committee-STAC), Maryland's Coastal and Watershed Resource Advisory Committee (CWRAC) and State Water Quality Advisory Committee (SWQAC). All of these groups were offered the opportunity to obtain additional information according to their varying interests.

The draft *Restoration Plan and Environmental Assessment* was issued by the Trustees in May of this year and placed on NOAA's internet site. Committee staff arranged for the report's distribution and for a presentation, with question-and-answer session, for the Patuxent River Commission. The Advisory Committee also arranged for a public meeting in mid-May to present the findings in the draft plan and to hear and consider public comments on the Plan. Public



comments at the community meeting, and the responses to them, are included as Appendix D.

Assist the DNR and MDE in Development of the Damage Assessment and Restoration Plan

As reports of injury assessment studies neared completion, presentations were made to the Advisory Committee by the Trustees, who also solicited from the Committee members the names of potential peer reviewers for the reports. In the late spring of 2001, as active restoration planning got under way, the Trustees also requested from the Committee suggestions of potential restoration projects for the six categories of injury and subsequently provided Committee members with a long list of project ideas put together by Trustee staff, consultants, local government staff and the public. Criteria the Trustees were required to use in evaluating projects were distributed to the Committee and are included in Appendix E.

Nearly 40 project ideas were compiled during the summer of 2001; Committee members were asked to review and comment on the ideas in their preliminary form, suggesting which appeared worth the effort to develop more fully for inclusion in the plan. The Committee requested that the Trustees give a preliminary evaluation of the projects, as to their feasibility and how they met the criteria, to assist their review.

As more projects were suggested during succeeding months, the list of candidate projects approached 60, as documented in the *Restoration Plan and Environmental Assessment*, particularly its Appendix 3. The draft plan presented ten preferred projects:

- Creation of a tidal marsh at a site on Washington Creek, St. Mary's County, with the material removed in order to lower the elevation to allow tidal interchange being used to augment an eroding beach nearby. Some off-shore structures would be included to help stabilize the beach. This project would compensate muskrat losses and the loss of ecosystem services of marshes damaged by the spill, as well as damaged beach shoreline. It would compensate for lost terrapins by providing enhanced nesting on the restored beach. Cost of this project is estimated to be \$754,600 for the marsh restoration and \$207,300 for beach restoration.
- Acquisition of permanent easements and restoration of ruddy duck nesting habitat in the Prairie Pothole Region of the Upper Midwest. Since ruddy ducks spend a relatively short time in the Chesapeake Bay region during their annual migrations, potential restoration projects are not available in the Patuxent River—they do not make use of marsh habitat and do not feed on submerged aquatic vegetation, for example. Ruddy ducks breed in specialized wetland/grassland habitat in the Upper Midwest; the only way to compensate for the loss of 553 ruddy ducks in the spill is to enhance their nesting habitat. This project was estimated to cost \$589,900. An additional benefit of this project is that other migratory waterfowl, including visitors to the Chesapeake Bay, also breed in this region, where habitat loss has been significant.
- Creating and seeding oyster reef sanctuary(ies), at places yet to be determined, to compensate for fish, shellfish and benthic community losses, and on a biomass basis for birds other than the ruddy ducks. (Small numbers of several other species of birds were lost.) Cost of projects totaling over 4.5 acres, with two oyster seedings, was estimated at \$705,200.
- Undertaking seven recreational improvements to compensate for the lost public recreational use, and diminished value of recreation on the River during the spring and summer of 2000. These projects totaled \$453,498, which was the estimated value of these lost and diminished recreational trips.

For recreational lost use projects, the total cost was the controlling factor in determining the number of projects to include in the plan. For the ecosystem losses being compensated by the other projects described above, cost simply resulted from the actions necessary to replace lost/damaged resources and ecosystem services. That money spent to restore ecosystem services could not be shifted to recreation projects was difficult for the Advisory Committee, and other members of the general public, to understand.

The draft plan incorporating these projects went out for public review in May, 2002. The comment period was 60 days, during which the Advisory Committee's community meeting was held and the Committee met to discuss its concerns and recommendations.

Advise the Departments Regarding Issues Such as Priorities



In intense discussions during the public comment period on the draft plan, Advisory Committee members grappled with what several members felt was a severe limitation in the Oil Pollution Act's ability to do all that was necessary to help bring the Patuxent River back to health. Committee members acknowledged that the Trustees' damage assessment work was exhaustive and competent and that the projects identified were appropriately scaled to the damages

caused by the spill. At the same time they expressed their deep concern for the many years of abuse of the River that occurred prior to the spill and their desire to see the River restored to the highest possible level of health.

Some members were concerned that Pepco would be funding projects far from the Patuxent and found it hard to accept that the money to be spent restoring the ruddy ducks could not be diverted to more local projects, including recreation. However, most agreed in writing to the Trustees that "...we note that the resources used to make up for the loss of ruddy ducks could not be transferred to enhance activities in the Patuxent. (These ducks are an open water species that breed in northern areas, and there are no actions that can be taken in Maryland that will affect their number. Therefore the Trustees have proposed that land in the Prairie Pothole area of the Midwest be restored and this restored nesting area be protected, so that ruddy duck breeding will increase and more birds will come to Maryland.)"

Many members, and some members of the public, felt that Pepco should go further than legally required, demonstrating it is a "good neighbor." And while acknowledging that the ecosystem restoration projects needed to occur at sites that would provide the greatest benefits to the River, Committee members were concerned about the equity among the affected counties of the recreational projects preferred in the plan. The Committee's concerns are expressed more fully in its July 8, 2002, letter to the Trustees, Appendix F, and summarized below under Findings and Recommendations.

Periodically Provide Reports at the Request of the Governor or the Departments

The final substantive charge to the Advisory Committee deals with reporting its findings to public officials charged with the clean-up and restoration of the River. The Committee responded to this charge in several ways:

- Written records of all Advisory Committee meetings were kept and provided to the Trustees, including the representatives of the Departments.
- As noted above, the Committee provided testimony to the House Environmental Matters Committee in January, 2001, describing its activities to date.
- This report responds to the Governor's request for a final report. It has been delayed beyond the June 30, 2002 date specified in the Executive Order in order to incorporate the final restoration plan. The Advisory Committee's Chairman wrote Governor Glendening in late June indicating the reasons the report would be delayed and summarizing the Committee's activities as amplified in this Report.

Committee Findings and Recommendations

In its July 8 letter to the Natural Resource Trustees (Appendix F), the Advisory Committee noted "...that the clean-up work undertaken by Pepco to date and the ecological restoration projects put forth by the Trustees address the damages identified by scientific investigation of the oil spill." It also indicated it had found that "[T]he Natural Resource Trustees appointed through the Act...have done a thoroughly professional and comprehensive job in accordance with their obligations under the OPA. We endorse their recommendations with one exception," found in one of the recommendations below.

Finally, the Committee "also recognizes that Pepco has undertaken substantial cleanup efforts, worked with the Natural Resource Trustees to assess injuries and identify appropriate restoration actions, and informed citizens about its efforts. The CAC values Pepco as a good corporate neighbor and applauds the company's past efforts to work with the community after the oil spill."

The Committee, in its letter, addressed one recommendation to the Natural Resource Trustees and one to Pepco, that:

- The Trustees explore adjustments to the current, proposed recreation restoration projects to enable more recreational restoration to be done in Calvert County, and

- “Pepco, furthering the good faith approach that the company has shown to date, should consider expending additional resources to restore trust and mend damaged good will among people who feel so strongly about their river.”

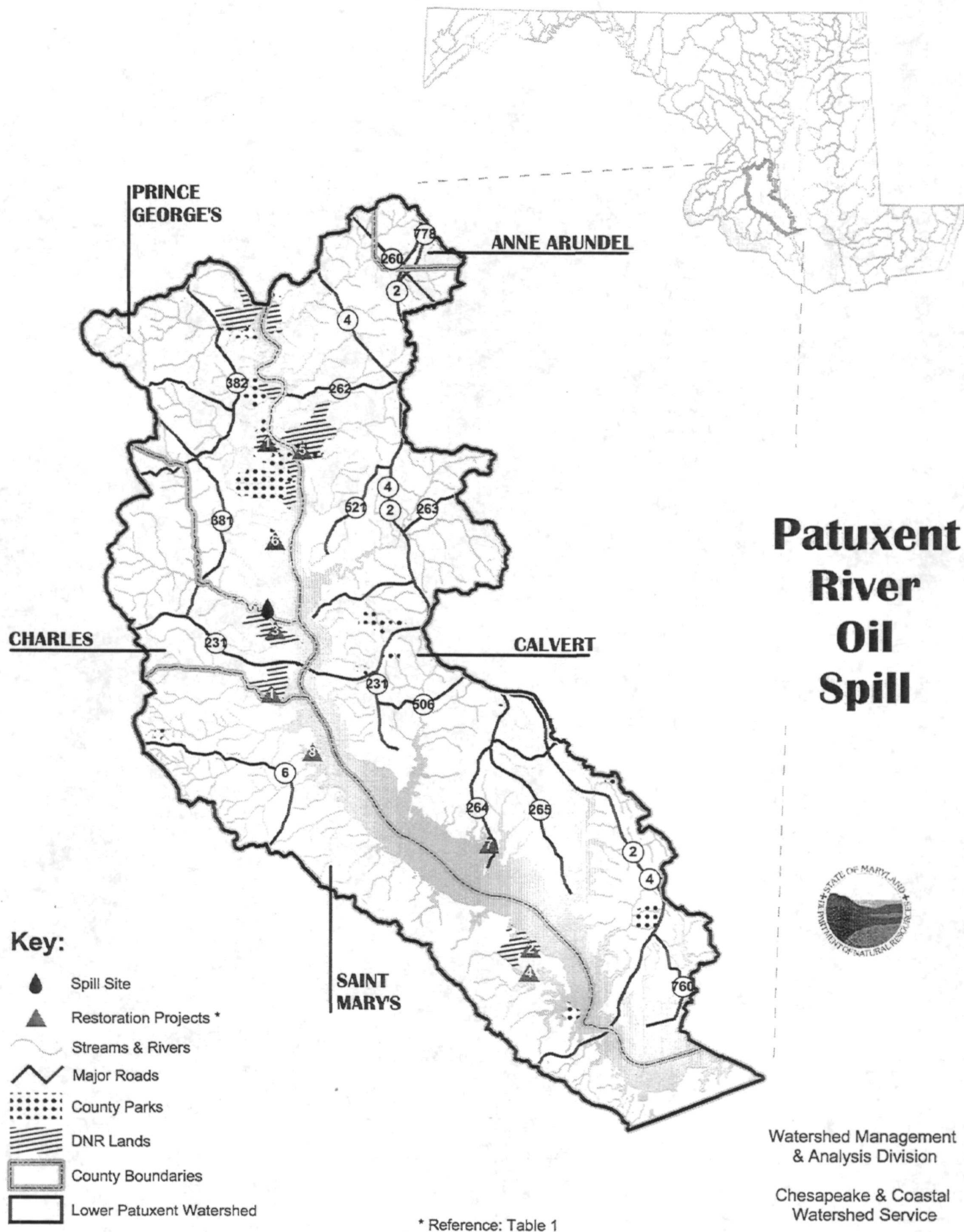
The final *Restoration Plan and Environmental Assessment* responds to the Advisory Committee's recommendation to the Trustees by adding a project, a canoe launch at Nan's Cove, in Calvert County. This project is included in Table 1, below, drawn from the final plan, and in the Map. This addition results in there being two recreational projects in each of the four affected counties. These projects together provide improved general access to the river, enhanced fishing opportunities, and diverse boating-related opportunities.

While the recommendation made to Pepco is more general, and has not met to date with a positive response, the Advisory Committee takes satisfaction in the Trustees' action as evidence that its efforts were heeded in the restoration planning process. The Committee also takes satisfaction in the passage of improved pipeline oversight legislation in the 2001 session of the General Assembly, to which its testimony contributed. This legislation will go some way toward preventing a recurrence of the April, 2000, spill at Chalk Point. The Committee looks forward to the signing of a consent decree among Pepco, ST Services and the Trustees and to implementation of the restoration projects, beginning in the spring of 2003.



Table 1

Summary of injuries and restoration alternatives (Numbers in parentheses are keyed to the Map of the oil spill area, opposite.)				
Injury Category		Injury Estimate	Primary Restoration	Preferred Compensatory Restoration Alternative(s)
Wetlands and Beach Shorelines		76 acres of brackish marsh habitat (40.5 acres lightly oiled, 12.0 acres moderately oiled, 23.4 acres heavily oiled)	Natural Recovery	Tidal Marsh Creation, Washington Creek-- 5.7 acres (8)
		376 muskrats	Natural Recovery	
		10 acres oiled shoreline (0.5 acre heavy, 6.4 acres moderate, 3.2 acres light)	Natural Recovery	Shoreline Beach Enhancement, Washington Creek --1.7 acres (8)
Diamondback Terrapins		122 estimated dead and 10 percent loss of hatchlings in the 2000 cohort Total injury estimate is 5,245 lost discounted terrapin years	Natural Recovery	
Birds	Ruddy Ducks	553 birds	Natural Recovery	Enhance and Protect Ruddy Duck Nesting Habitat (Prairie Pothole Region)
	Other Birds	143 birds (comprising about 14 species)	Natural Recovery	Create and Seed an Oyster Reef Sanctuary-- 4.7 acres (Site(s) to be determined)
Fish and Shellfish		2,464 kg lost biomass	Natural Recovery	
Benthic Communities		2,256 kg lost biomass	Natural Recovery	
Lost Recreational Use		12,704 lost trips 112,359 trips with diminished value. Estimated dollar value loss \$453,500	Natural Recovery	(1) Canoe/ Kayak Paddle-in Campsites at Milltown Landing and Indian Creek NRMAs (2) ADA-Accessible Kayak/ Canoe Launch at Greenwell State Park (3) Maxwell Hall NRMA Recreational Improvements (4) Forest Landing Boat Ramp (5) King's Landing Boardwalk and River Education Project (6) Cedar Haven Fishing Pier (7) Boat Access at Nan's Cove



Appendix A
Cleanup Status

All information provided below is current as of 10/28/02.

The geographical area of inspections was divided into 53 zones which included areas north of Chalk Point down river to the Chesapeake Bay.

53 zones meet Phase I criteria.

PHASE I CLEANUP GUIDELINES

The Phase I guidelines were developed and implemented in the following areas.

Sandy Beaches

- a. Free of substantial mobile, liquid or black oil, pavement, "cow pies", or tar patties.
- b. Oil stains may still be present, but using best professional judgment, further treatment or cleanup at this stage may be detrimental to the environment.
- c. Oil stains may produce rainbow sheen when mixed by wave action but should not produce unacceptable brown oil or brown sheen.

Man-Made Structures

- a. Oiled riprap, pilings, docks, and sea walls should be free of bulk oil and not produce unacceptable brown sheen.
- b. Oil stains that cannot be scratched off with a fingernail may be allowed to weather and degrade naturally.

Vegetated Sandy or Hard-Bottom Shorelines

- a. Area should be free of pooled and potentially mobile oil.
- b. Oil that, in using best professional judgment, is not likely to directly affect wildlife may be allowed to weather and degrade naturally until the Phase II evaluation.
- c. No actions should be taken which could accelerate further damage.

Wetlands (Marshes)

- a. Area should be free of pooled and potentially mobile oil.
- b. Oil that, in using best professional judgment, is not likely to directly affect wildlife may be allowed to weather and degrade naturally until the Phase II evaluation.
- c. No actions should be taken which could accelerate further damage.

40 zones meet Phase II criteria

PHASE II CLEANUP GUIDELINES

Guidelines are in place for Phase I activities. The guidelines presented for the Phase II activities are specified for various environments. In all of these environments, use of best professional judgment may be necessary to determine the efficacy of further cleanup and whether further activities could cause excess environmental damage – i.e., more damage than would be caused by leaving the deposits. It must be recognized that on warm, sunny days, the amount and thickness of oil sheening may increase, although eventually the remaining oil (e.g., on vegetation) is expected to degrade and result in no further sheening.

Marshes and Wetlands

The following Phase II guidelines will be used for the marshes and wetlands:

- a. Areas will be clear of recoverable, potentially mobile and black oil (e.g., no tar balls present)
- b. Minimal oil staining
- c. No rainbow sheen on the sediment, soil, or water
- d. Oil that produces a silver sheen may be present and will be allowed to degrade naturally

Beaches

The following Phase II guidelines will be used for the surface and subsurface beach areas (subsurface inspections in areas that contain turtle nests should be limited to the top 12 centimeters or best professional judgment to ensure that nesting sites or eggs are not impacted):

- a. Areas will be clear of recoverable, potentially mobile and black oil such that a sorbent pad placed on the area does not become stained (e.g., no tar balls present)
- b. Minimal oil staining
- c. No rainbow sheen
- d. No silver sheen present except as when noted and agreed to by the Trustees that no further operational activities are feasible for elimination of the sheen. Stipulation for long-term monitoring will be made for those areas noted as exceptions.

Man-Made Structures.

The following Phase II guidelines will be used for man-made structures:

- a. Areas will be clear of recoverable, potentially mobile and black oil (e.g., no tar balls present)
- b. Minimal oil staining present so that a sorbent pad pressed against the area is not stained
- c. No rainbow sheen
- d. Oil that produces a silver sheen may be present and will be allowed to degrade naturally

11 zones meet Phase II Provisional criteria

2 zones pending Phase II Provisional criteria sign-off

PHASE II PROVISIONAL GUIDELINES

Zones that have environmentally sensitive areas, such as marshes, that present a cleanup challenge, are more difficult to cleanup and any cleanup technique is likely to do more harm than good. Provisional Approval allows the portions of zones that meet the Phase I and Phase II criteria to be signed off as complete and places the remaining areas of the zones into a long-term monitoring program. This will allow the environmentally sensitive areas to heal on their own through natural ecological processes and enable the areas to be monitored for improvement.

LONG-TERM MONITORING

EPA will have oversight of long-term monitoring of water, intertidal sediments and marsh sediments for a minimum of five years. Further monitoring will depend on the persistence of oil in the environment and extent of contamination.

Appendix C

Patuxent River Oil Spill Citizens Advisory Committee

Honorable C. Bernard Fowler	Former State Senator
Honorable Mary C. Lorsung	Chair of Patuxent River Commission
Robert T. Brown	Waterman
Kimberly L. Coble	Staff Scientist, Chesapeake Bay Foundation
Janet E. Cook	Executive Director, St. Mary's Co. Chamber of Commerce
Honorable Roy P. Dyson	MD State Senator, representing Legislative District 29
Kirk T. Ingram	Waterman
Sally G. Jameson	Executive Director, Charles Co. Chamber of Commerce
Kenneth C. Keen	Waterman
D. Carolyn McHugh	Executive Director, Calvert Co. Chamber of Commerce
Dianne D. Pearce	President & CEO, Chesapeake Wildlife Sanctuary Inc.
Joseph F. Stine, Jr.	Waterman
Honorable Robert L. Swann	Calvert County Commissioner
Kenneth R. Tenore, Ph.D.	Director, Chesapeake Biological Lab & UMCES Academic Affairs Director
Dennis F. Whigham, Ph.D.	Plant Ecologist, The Smithsonian Environmental Research Center
Hon. Myrna White	Mayor of Eagle Harbor (resigned)
George B. Wilmot	Former Research Chemist
Honorable John F. Wood, Jr.	MD State Delegate, representing Legislative District 29

Appendix D

NOTES

Patuxent Oil Spill Citizens Advisory Committee

COMMUNITY MEETING

Calvert County Fairgrounds

May 15, 2002

Robert Swann Questioned whether the project selection was coordinated with the Star Spangled Banner Trail that Senator Sarbanes has sponsored for funding

Answer: Projects at Jefferson Patterson Park were examined in the study.

Daphne McGuire: There is nothing in the plan for power boaters—the projects do not fit the folks who missed out on their recreational boating in 2002. She wants a ramp in the northern part of St. Mary's County and believes the list of recreational projects should be revisited. She is talking with a friend in real estate about possible sites for purchase.

Roger Fink: He will submit written comments but had a question on how cost effectiveness is defined.

Answer: If two projects provide the needed restoration of ecological services, which costs less.

The plan doesn't look at opportunities for projects on private lands, where many people lost small wetlands and beaches on their personal property and would like to cooperate in restoration of the resources.

Answer: Private lands are not off the table.

Denise Breitburg: There is little in the plan to restore lost recreational uses in Calvert County. Was the closure of Hallowing Point for the entire season factored in? There is a need for more canoe and kayak access in Calvert County.

Gary Fields: Where is the proposed canoe/kayak campsite north of Golden Beach?

Answer: Milltown Landing, owned by DNR.

Dr. Zafiropulos: Was there any damage at Hallowing Point?

Answer: Yes.

Fishing and crabbing has declined in the last two years.

Harold Pevey: What water quality sampling is being done now? Are current samples being compared with those taken at the time of the spill? Knows petroleum distillates are there now because he sees tar balls. Also sees nothing about muskrats and has zero muskrats on his property.

Answer: Muskrats are addressed in the injury assessment, and loses will be more than compensated by the proposed wetland restoration project. Long term water quality monitoring is required.

Will property owners have access to water quality data?

Answer: Yes, reports are at repositories.

Was the University of Maryland involved?

Answer: Yes.

Ken Hastings: Four recreational project sites are north of the spill, and were unaffected, and Forest Landing did not receive any oil.

Monty Pugh: Works in environmental field and wonders why there is no schedule in the plan—when will projects be selected and started, expected completion dates. Questioned diminished trip value dollar amounts, which seem too low—they average less than \$1 apiece. What about trips that originated outside the spill zone? Suggested pollution prevention opportunities, such as more pump-out stations.

Answer: The final plan can be specific about a timeline, since it will be basis for settlement agreed to by courts.

Rob Jones: Are restoration projects for people of for the landscape. There is no sense in having boat ramps if we don't heal the land. Do dollar amounts for recreational lost uses include maintenance of the projects built? There needs to be staff to maintain the projects. Cited one ranger at Greenwell

State Park. Suggested supporting alternative energy sources, getting rid of oil altogether.

Scott McGuire: He has worked six years with Willem Roosenburg, exploring most of the Patuxent shoreline for terrapin nesting habitat. Preferred site is bad, Cremona Farm better; preferred site is moderately used by terrapins, while Cremona is more heavily used. He mentioned nest site fidelity. He also commented that the shoreline is dynamic and questioned the ability of breakwaters to ensure beach stability.

Answer: Trustees assumed low beach usage by terrapins; amount of beach restored is twice as much as would otherwise be needed.

Daphne McGuire: If you create beach terrapins won't use, why do it?

Dale Shaner (?): Questioned bird damage assessment and whether there is not some other way to do something about ducks. Also questioned where oyster stock would come from for the proposed acreage of oyster sanctuary.

Answer: No other options for restoring ruddy ducks in Chesapeake Bay watershed. They nest and reproduce in the prairie potholes. Ducks come through area during migration and rest. They are open water feeders so benthic restoration and wetlands restoration will not benefit their populations.

Oyster stock will probably come from state hatchery (Piney Point or Horn Point)

John Norris: Trustees should consider that the longer it takes to restore, the more the damages that need restoration. Queried NEPA signature page at end of plan and when signatures would be obtained.

Answer: Final plan will have signatures.

Bernie Fowler: Clarifying question for Trustees: Is any change in damage assessment possible?

Answer: New data could cause a reassessment, it is unlikely.

Appendix E

Factors to Evaluate Proposed Restoration Projects under the Oil Pollution Act Patuxent River Oil Spill

On April 7, 2000 at 1800 hours, a leak from a pipeline which supplies fuel for the Chalk Point Generating Station was detected. The pipeline is owned by PEPCO and operated by ST Services. Approximately 126,000 gallons of a mixture of #2 and #6 oil were released into Swansons Creek, a tributary of the Patuxent River. Ultimately, approximately 17 linear miles of the Patuxent River and 40 miles of shoreline including the mainstem of the Patuxent and tributaries (Swanson, Indian, and Trent Hall creeks) were oiled. Initial assessment activities indicate that injuries appear to be centered on tidal wetlands, certain birds (ruddy ducks) and furbearing animals (muskrats). Other areas of potential injury currently under evaluation include benthic organisms, other birds (including waterfowl, herons, ospreys, and eagles), wildlife (including terrapins), as well as finfish and shellfish (including crabs, oysters, clams and fish). Lost recreational use of the river (including shoreline use, recreational fishing, boating, swimming, and shell fishing) is also being evaluated.

Under the Natural Resource Damage (NRD) Regulations implementing the Oil Pollution Act (OPA), 15 C.F.R. Part 990, is to make the environment and public whole for injuries to natural resources and natural resource services resulting from a discharge of oil. This goal is achieved through the restoration, rehabilitation, replacement or acquisition of equivalent natural resources and/or services. Restoration is comprised of primary and compensatory restoration activities. Primary restoration activities are designed to restore an injured resource to its baseline condition; that is its condition but for the injury from the oil release. Compensatory restoration focuses on activities which compensate the public for the loss of those resources and their services from the time of injury until such time as the injured resources are fully restored to their baseline condition. Further, these regulations require the Trustees to identify a reasonable range of restoration alternatives, evaluate and select the preferred alternative(s), and develop a Draft and Final Restoration Plan.

The OPA regulations identify six "factors" which, at minimum, the Natural Resource Trustees (Trustees) (Note 1) should consider when evaluating restoration options.(Note 2) The Trustees have supplemented these factors with additional ones to further aid in evaluating restoration. The factors have been divided into primary and secondary categories with the greatest weight assigned to those in the primary category. Each of these factors is discussed below (OPA factors are identified with an asterisk (*)).

PRIMARY FACTORS

1. Return Injured Natural Resources to Baseline and/or Compensate for Interim Losses.* The alternative must demonstrate a rational relationship to the injuries giving rise to the claim for natural resource damages.

The OPA regulations require that the Trustees' "goals and objectives" for restoration be considered. To ensure that the injured resources are returned to baseline and that interim losses are properly compensated for, the restoration projects must demonstrate a rational relationship to the injuries giving rise to the claim for natural resource damages. There are three main components to evaluating the relationship: similarity in attributes to the injured habitat; proximity to the affected area; and the projects must be of the appropriate scale. Determining whether a rational relationship exists will depend on the site and case-specific facts.

a) Similarity in Attributes to the Injured Habitat

The NRD regulations implementing OPA require that "When identifying the compensatory restoration components of the restoration alternatives, Trustees must first consider compensatory restoration actions that provide services of the same type and quantity, and of comparable values as those lost."

Restoration options are evaluated to determine how well the restoration alternative would address the injuries to natural resources that occurred as result of the incident. Screening questions include: Does the option provide the same type of natural resources and services, both on site and off-site, that are lost due to the injury? If not, will the proposed option result in resources and services that are similar or complimentary to the injured natural resources and services? Alternatives that come closest to restoring the same type of organisms and habitats as those injured by the incident are more likely to be selected than those projects where the nexus is not so close.(Note 3)

Examples of restoration projects that would provide similar attributes to injured resources would include, but are not limited to: fish passageway construction or oyster bed creation projects to compensate for fish or shellfish injuries (so long as the damage assesment concludes that there is finfish or shellfish injury), marsh enhancement/ restoration to compensate for marsh injury (so long as the damage assesment concludes that there is a marsh injury), nest boxes for birds to compensatefor bird injury (so long as the damage assesment concludes that there is a bird injury), and fish stocking to compensate for lost human use such as fishing (so long as the damage assesment concludes that there is lost human use associated with the incident).

b) Proximity to Affected Area

Proximity addresses whether the restoration alternative is located within the area injured or is within a reasonable distance of the affected area (e.g., same watershed, ecosystem,

and/or political boundary). It also considers the extent to which the option directly or indirectly benefits injured habitats or compensates for lost use within the affected area. For example, a habitat restoration project located some distance from the habitat injured may be sufficiently related to the injured resources, based on species migratory patterns, patterns of habitat use, affected life stages, or predator/prey relationships to warrant consideration. Similarly, a project in one location which is intended to restore human uses lost in another location may be reasonably related to the lost uses if there is evidence indicating that the affected user groups would likely benefit from the project.

For the Patuxent River Oil Spill of April 7, 2000, the affected area may be defined as the lower Patuxent River Basin including upstream of the spill site. However, projects located in other areas of Chesapeake Bay may also be considered if a relationship to the injured resource can be demonstrated.

c) Compensatory Restoration Must Be Scalable

The compensatory restoration projects selected must be scaled in order to compensate for the injury. Accordingly, the gains in resources and/or services provided by the compensatory projects must be equal to the resources and/or services lost as a result of the injury.

2. Likelihood of Success and Technical Feasibility of Each Alternative*

This factor considers whether a restoration project can be successfully implemented in a reasonable amount of time given available technology and expertise. Generally, the likelihood of a project's success is evaluated based on whether the methods: (1) are proven; (2) have a high rate of success as documented in the literature; (3) are capable of being implemented in a cost effective manner; and, (4) characterize the natural resource service gains stemming from the project. This does not preclude the use of existing technology in new and creative ways so long as there is a significant likelihood of successful implementation. Nevertheless, for new or unproven technologies, the Trustees should provide technical justification demonstrating that there is a reasonable basis to believe that the project will be successful.

This factor also considers project and site-specific considerations that may influence project success. For example, for an oyster bed project, project attributes that may affect technical feasibility include sediment type, adjacent sources of pollution, salinities, and navigation needs. For a marsh creation project, project attributes that may affect technical feasibility include the availability of a suitable sediment source, and the potential for wave or storm stress.

3. Regulatory Considerations

Restoration projects must comply with applicable federal, state, and local laws and regulations.

SECONDARY FACTORS

4. Cost to Carry Out the Restoration Alternative* (Cost Effectiveness)

This factor considers the relationship of restoration project costs to natural resource

benefits. Favored projects are those that provide the most benefit for the least cost expended. However, the Department of Interior (DOI) in its preamble to the 1991 and 1993 proposed natural resource damage regulations implementing the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) explicitly stated that the relationship of costs to benefits was not to result in a "straight cost/benefit analysis." Rather, DOI directed Trustees to examine both the circumstances unique to each assessment and the expected alternative costs. (Note 4) DOI was clear that any discussion of the costs and benefits of a given project had to be considered in light of a number of restoration factors that were contained in the regulations.

Factors that may influence project costs include methods and procedures for project implementation, materials, equipment, project design, permitting, oversight, maintenance (including contingency funds), and monitoring.

5. Consistency with Local, Regional, and National Restoration Goals and Initiatives

This factor considers the extent to which a restoration project supports or is consistent with national, regional, and local restoration initiatives and mandates, local resource management plans, town ordinances, and the goals of various community groups. Applicable objectives and initiatives for this case may be identified by the Chesapeake Bay National Estuary Program, Chesapeake Bay 2000, etc.

6. Alternative Prevents Future Injury as a Result of the Incident and Avoids Collateral Injury as a Result of Implementing the Alternative* (Avoids Additional Injury)

This factor considers the potential for a restoration project to aggravate or cause additional natural resource or habitat injuries.

7. Alternative Benefits More than One Natural Resource and/or Service* (Multiple Benefits)

A restoration project that not only restores an injured resource but provides incidental benefits to other resources whether injured or not is generally preferable. For example, the placement of beacons as navigational aids in the Florida Keys to prevent large vessel groundings on coral reefs also had the incidental benefit of preventing injury to seagrass beds. Similarly, salt marsh habitat could be created to compensate not only for injured salt marsh but also through a service linkage, for bird injuries or aquatic injuries as well. However, the Trustees must balance this preference for benefitting multiple resources with the statutory goal of restoring the injured resource giving rise to the claim for natural resource damages.

8. Longevity of the Restoration Project

This factor considers the expected lifespan of the project. Projects that are permanent or have long expected lifespans are generally favored over projects with temporary, short-term lifespans/benefits. Where possible, projects involving land acquisition, or other constraints on title (e.g., riparian buffers) should be in perpetuity. (Note 5) Since many types of projects can take several years to reach maturity, longevity is important in order to increase the likelihood of success.

Additionally, temporary projects may require termination activities thereby increasing administrative costs. However, projects that are not considered permanent can be acceptable if the Trustees determine that the scale of the project is such that it fully compensates for the injuries that gave rise to the claim.

9. Integration With Existing Management Programs/Duplication or Substitution for other Authorities

This factor considers if the project can "stand-alone" or could be integrated into an existing resource management program or larger project. Projects that can be integrated may leverage the environmental benefits of the existing program and realize significant administrative cost savings. For example, the channel marking projects referenced in 7. above can be integrated into existing Coast Guard marking programs avoid future injury to resources in a National Marine Sanctuary. Supplemental planting of marsh vegetation on an existing marsh platform which was created as part of another project can provide additional environmental benefits by stabilizing the platform and providing water quality benefits and wildlife habitat.

However, although integration with other programmatic efforts may be beneficial, the Trustees need to ensure that constraints that may be imposed by those programs do not conflict with the Trustees' restoration goals under OPA. For example, mitigation of the effects of dredge and fill activities required as part of the issuance of a permit for filling of wetlands under 404 of the Clean Water Act may not be used to fulfill the separate and independent natural resource restoration requirements under OPA.

10. Adjacent or Nearby Affecting Land Uses

This factor considers the impact of adjacent or nearby land uses on the functional value of the restoration project. Industrial, residential, or agricultural land use may negatively or positively impact the functionality of a project. For example, noise, lights, non-point runoff, and vessel traffic associated with an adjacent industrial site may limit the use of a riparian buffer or wetland habitat by wildlife. Conversely, non-point runoff from an adjacent agricultural site may increase the opportunity for a riparian buffer or wetland project to provide improvements in water quality. Likewise, acquisition of adjacent or nearby land that is pristine or protected (e.g., conservation areas) may provide greater and longer-term benefit for wildlife use.

11. Site Ownership

This factor considers whether potential terrestrial or sub-tidal sites (e.g., sites for riparian buffers, oyster leases) are publicly or privately held and for private property, whether landowner permission (easement) has been granted for the project.

12. Logistical Considerations

This factor considers issues directly related to project coordination, oversight, and implementation such as site access, availability of equipment and materials, the ability to move crews and equipment, seasonal timing constraints (planting windows, nesting/breeding times),

special status species or historical property consultations, and permitting complexity. It also considers whether a proposed project type (e.g., dam removal or riparian buffer creation) is linked to a specific project location. Projects where a specific site has been identified and where the logistical complexity is minimal are favored.

13. Long Term Operation and Maintenance.

Where possible, the trustees should choose projects that minimize operation and maintenance (O&M) requirements for several reasons. First, such projects avoid long term commitment of personnel or fiscal resources. Second, such projects tend provide a more permanent restoration solution. Third, even where the RP agrees to undertake the O&M, the trustees must nevertheless dedicate personnel for oversight and review.

14. Public Health, Safety, and Welfare*

This factor evaluates the potential for a given restoration project to negatively impact public health, safety, and welfare.

NOTES

1. The Trustees are the Maryland Department of the Environment, the Maryland Department of Natural Resources, the National Oceanic and Atmospheric Administration, and the U.S. Fish and Wildlife Service

2. Under the regulations, the Trustees are to evaluate restoration alternatives based "at minimum" upon the following: (1) the costs to carry out the alternative; (2) the extent to which each alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and /or compensating for interim losses; (3) the likelihood of success of each alternative; (4) the extent to which each alternative will prevent future injury or avoid collateral injury as a result of implementation; (5) the extent to which each alternative benefits more than one natural resource or service; and, (6) the effect of each alternative on public health and safety. 15 C.F.R. § 990.54(a).

3. In general, the natural resource trustees prefer restoration projects over land acquisition projects.

4. 56 Fed. Reg. At 19,758 (1991).

5. Property interests should be transferred to a permanent entity capable of continuously enforcing the property interests.



STATE OF MARYLAND

Patuxent River Oil Spill Citizens Advisory Committee

Parris N. Glendening
Governor

C. Bernard Fowler
Chair

Kathleen Kennedy Townsend
Lt. Governor

July 8, 2002

Jim Hoff
NOAA Damage Assessment Center

Robert Summers
Md. Department of Environment

Carolyn Watson, Assistant Secretary
Md. Department of Natural Resources

Beth McGee
U.S. Fish and Wildlife Service

John Derrick, Chief Executive Officer
Pepco

Dear Natural Resource Trustees and Mr. Derrick:

The Patuxent River needs help. In April of 2000, 126,000 gallons of fuel oil killed or injured ducks and many others of the River's living resources. The spill destroyed wetlands and other wildlife habitat, and it denied the use, beauty and pleasure of the river to thousands of Marylanders for many months. The Patuxent River Oil Spill Citizens' Advisory Committee appointed by Governor Parris N. Glendening is appealing to both the Natural Resource Trustees and Pepco to extend their current efforts and find more ways to make our river whole.

The federal Oil Pollution Act of 1990 (OPA) describes the process for determining the damage to an oil-polluted river. This law also describes how the damage caused by a spill is to be repaired. The Natural Resource Trustees appointed through the Act (personnel from National Oceanic and Atmospheric Administration (NOAA), U.S. Fish and Wildlife Service (USFWS), Maryland Department of Natural Resources (DNR), and Maryland Department of Environment (MDE)) have done a thoroughly professional and comprehensive job in accordance with their obligations under the OPA. We endorse their recommendations with one exception.

The CAC also recognizes that Pepco has undertaken substantial cleanup efforts, worked with the Natural Resource Trustees to assess injuries and identify appropriate restoration actions, and informed citizens about its efforts. The CAC values Pepco as a good corporate neighbor and applauds the company's past efforts to work with the community after the oil spill.

We understand that as the OPA was applied in the Patuxent, the restoration of the lost natural resources (such as ducks, terrapins, wetlands, or marshland) is separate from the compensation for lost recreational activity (such as boating or kayaking on the river, birding, or just simply enjoying the river's view) and that neither the funds nor the projects from the natural resource recovery can be used to make up for lost recreational activity, and vice versa. I have received Senator Dyson's reservations with the expenditure of funds in the Midwest Prairie Pothole area to address the loss of ruddy ducks on the Patuxent River. While several Committee members shared this concern, we note that the resources used to make up for the loss of ruddy ducks could not be transferred to enhance activities in the Patuxent. (These ducks are an open water species that breed in northern areas, and there are no actions that can be taken in Maryland that will affect their number. Therefore the Trustees have proposed that land in the Prairie Pothole area of the Midwest be restored and this restored nesting area be protected, so that ruddy duck breeding will increase and more birds will come to Maryland.)

The Citizens Advisory Committee feels that the clean-up work undertaken by Pepco to date and the ecological restoration projects put forth by the Trustees address the damages identified by scientific investigation of the oil spill. However, it is the Committee's opinion that the Patuxent needs more help, particularly in Calvert County, which sustained much damage but does not have a proportionate share of recreation projects proposed for it. We recommend that the Trustees and Pepco undertake the following actions:

- The Trustees explore adjustments to the current, proposed recreation restoration projects to enable more recreational restoration to be done in Calvert County, and
- Pepco, furthering the good faith approach that the company has shown to date, should consider expending additional resources to restore trust and mend damaged good will among people who feel so strongly about their river.

Over the past two years the Committee has met regularly with the Natural Resource Trustees, representatives of Pepco and people concerned about the river, the spill, and the recovery. Committee members have asked questions, attended numerous briefings and meetings and offered advice to state and federal agencies and the Trustees. Equally important the Committee has communicated with the public in an effort to strongly represent the interests of the citizens of Maryland.

Over the last two years, however, the Committee has worked to overcome one constant challenge:

- How to go beyond the legalistic requirements of the Oil Pollution Act and express the depth of feeling and concern people have for the Patuxent?

Tens of millions of dollars have been spent prior to the spill to help this great treasure shine as Maryland's premier river. The Committee believes that Marylanders' love of the river runs strong and deep. People want to see and enjoy and embrace "their" river, without dwelling on the oil spill tragedy, and to safeguard the Patuxent for future generations. More needs to be done.

The Citizens Advisory Committee has completed the duties assigned to it by the Governor. Its report will be issued shortly. But, the end of the Committee's formal meetings will not lessen the interest or concern Committee members have for the river and for its restoration. Whether elected official, scientist, waterman, environmentalist, or simply concerned citizen, each member of the Committee will continue to advocate for the river's health, and for the future.

Yours truly,

Bernie Fowler, Chair